

In the Claims:

1. (currently amended) A process for the production of a strongly adherent coating on an metal or inorganic or organic metalized substrate, comprises steps:
  - a) treating substrate with a low-temperature plasma treatment, a corona discharge treatment or a flame treatment is carried out on the inorganic or organic metalized substrate, wherein the substrate is metalized with layers of metal, wherein the substrate is aluminum or substrate metalized with aluminum.
  - b) applying one or more photoinitiators or mixtures of photoinitiators with monomers or/and oligomers, containing at least one ethylenically unsaturated group, or solutions, suspensions or emulsions of the afore-mentioned substances, are applied to the inorganic or organic metalized to the pretreated substrate under normal pressure to form a layer, which layer is optionally dried to remove solvent if present, and then
    - c) irradiating the layer of step b) with from 1 to 1000 10-200 mJ/cm<sup>2</sup> of UV/Vis light having wavelengths from 150 to 700 250-500 nm to fix the one or more photoinitiators in the layer of step b), and either
      - d1) the substrate so precoated with photoinitiator is coated with a composition comprising at least one ethylenically unsaturated monomer or oligomer, and the coating is cured by means of UV/VIS-radiation or an electron beam; or
      - d2) coating the substrate so treated in step c) precoated with photoinitiator is coated with a printing ink and dried.

2. (cancelled)

3. (original) A process according to claim 1, wherein the photoinitiator is a compound or combination of compounds from the classes of benzoins, benzil ketals, acetophenones, hydroxyalkylphenones, aminoalkylphenones, acylphosphine oxides, acylphosphine sulfides, acyloxyiminketones, peroxy compounds, halogenated acetophenones, phenylglyoxylates, dimeric phenylglyoxalates, benzophenones, oximes and oxime esters, thioxanthones, thiazolines, ferrocenes, coumarins, dinitrile compounds, titanocenes, sulfonium salts, iodonium salts, diazonium salts, onium salts, borates, triazines, bisimidazoles, polysilanes and dyes, and also corresponding coinitiators and/or sensitizers.

4. (original) A process according to claim 1, wherein the photoinitiator is a compound of formula I or Ia

(RG)-A-(IN) (I), (IN)-A-(RG')-A-(IN) (Ia),

wherein

(IN) is a photoinitiator base structure;

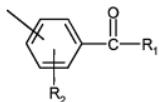
A is a spacer group or a single bond;

(RG) is hydrogen or at least one functional ethylenically unsaturated group; and

(RG') is a single bond or a divalent radical that contains at least one functional ethylenically unsaturated group, or is a trivalent radical.

5. (original) A process according to claim 4, wherein in the compound of formula I or Ia

(IN) is a photoinitiator base structure of formula (II) or (III)

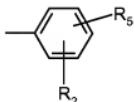


(II),



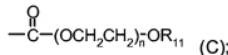
(III),

R1 is a group (A), (B), (C) or (III)



(A),

-CR6R7R8 (B)



n is a number from 0 to 6;

R2 is hydrogen, C1-C12alkyl, halogen, the group (RG)-A- or, when R1 is a group (A), two radicals

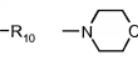


R2 in the ortho-position to the carbonyl group may also together be -S- or

R3 and R4 are each independently of the other C1-C6alkyl, C1-C6alkanoyl, phenyl or benzoyl, the radicals phenyl and benzoyl each being unsubstituted or substituted by halogen, C1-C6alkyl, C1-C6alkylthio or by C1-C6alkoxy;

R5 is hydrogen, halogen, C1-C12alkyl or C1-C12alkoxy or the group (RG)-A-;

R6 is OR9 or N(R9)2 or is

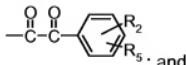


or SO2R9;

**R<sub>7</sub>** and **R<sub>8</sub>** are each independently of the other hydrogen, C<sub>1</sub>-C<sub>12</sub>alkyl, C<sub>2</sub>-C<sub>12</sub>alkenyl, C<sub>1</sub>-C<sub>12</sub>alkoxy, phenyl or benzyl or **R<sub>7</sub>** and **R<sub>8</sub>** together are C<sub>2</sub>-C<sub>6</sub>alkylene;

**R<sub>9</sub>** is hydrogen, C<sub>1</sub>-C<sub>6</sub>alkyl or C<sub>1</sub>-C<sub>6</sub>alkanoyl;

**R<sub>10</sub>** is hydrogen, C<sub>1</sub>-C<sub>12</sub>alkyl or phenyl;

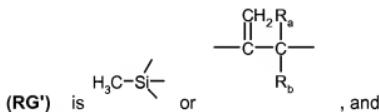


**R<sub>11</sub>** is hydrogen, C<sub>1</sub>-C<sub>4</sub>alkyl or

**X<sub>1</sub>** is oxygen or sulfur.

**6. (previously presented)** A process according to claim 5, wherein in the compound of formula I or Ia

**(RG)** is R<sub>c</sub>R<sub>b</sub>C=CR<sub>a</sub>-;



**R<sub>a</sub>, R<sub>b</sub> and R<sub>c</sub>** are each independently of the other hydrogen or C<sub>1</sub>-C<sub>6</sub>alkyl.

**7. (previously presented)** A process according to claim 1, wherein the photoinitiator(s) or mixtures thereof with monomers or oligomers are used in combination with one or more liquids in the form of solutions, suspensions and emulsions.

**8. (previously presented)** A process according to claim 1, wherein in process step d1) a photopolymerisable composition, comprising at least one ethylenically unsaturated monomer or/and oligomer and at least one photoinitiator and/or coinitiator, is applied to the pretreated substrate and cured by means of UV/VIS radiation.

**9. (previously presented)** A process according to claim 1, wherein an inert gas or a mixture of inert gas with reactive gas is used as the plasma gas.

**10. (original)** A process according to claim 9, wherein air, H<sub>2</sub>, CO<sub>2</sub>, He, Ar, Kr, Xe, N<sub>2</sub>, O<sub>2</sub> or H<sub>2</sub>O are used singly or in the form of a mixture.

**11. (previously presented)** A process according to claim 1, wherein the photoinitiator layer applied has a layer thickness of up to 500 nm.

12. **(previously presented)** A process according to claim 1, wherein process step b) is carried out immediately after process step a) or within 24 hours after process step a).

13. **(previously presented)** A process according to claim 1, wherein the concentration of photoinitiator or photoinitiators in process step b) is from 0.01 to 99.5 %.

14. **(previously presented)** A process according to claim 1, wherein process step c) is carried out immediately after process step b) or within 24 hours after process step b).

15. **(previously presented)** A process according to claim 1, wherein drying in process step b) is effected in ovens, with hot gases, heated rollers or IR or microwave radiators or by absorption.

16. **(cancelled)**

17. **(original)** A process according to claim 1, wherein portions of the photoinitiators, or mixtures thereof with monomers and/or oligomers, applied in process step b) that have not been crosslinked after irradiation in process step c) are removed by treatment with a solvent and/or water and/or mechanically.

18. **(canceled)** .

19. **(cancelled)**

20. **(withdrawn)** A strongly adherent coating on an inorganic or organic metallized substrate obtained by a process according to claim 1.

21. **(cancelled)**.

22. **(cancelled)**.

23. **(new)** The process according to claim 1, wherein the printing ink comprises epoxyacrylate, polyestertetraacrylate, urethanacrylate, diacrylate oligomer of a bisphenol, Cu-phthalocyanine Cu-

phthalocyanine, (4-morpholino-benzoyl)-1-benzyl-1- dimethylaminopropane, benzildimethylketal, or a mixture thereof.

24. (new) The process according to claim 1, wherein the photoinitiators or mixtures of photoinitiators comprise benzophenone, bis (2,4, 6-trimethylbenzoyl)-phenyl-phosphine oxide, tris (hydroxyethyl)-isocyanurat-triacrylate, or a mixture thereof.